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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,293	09/21/2005	Nicolas Pangaud	ASK-010	1905

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EXAMINER	
KARACSONY, ROBERT	
ART UNIT	**PAPER NUMBER**
2821	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/550,293	PANGAUD ET AL.	
	Examiner	Art Unit	
	Robert Karacsony	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicants arguments filed on February 20,2007 have been received and entered in the case. Claims 8-13 are still pending. The arguments and amendments do not overcome the prior art rejections noted in the previous Office action, and therefore, are remained for the reasons set forth below. This action is FINAL.

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

> The oath or declaration is defective because:
> It does not identify the foreign application for patent or inventor's certificate on which priority is claimed pursuant to 37 CFR 1.55, and any foreign application having a filing date before that of the application on which priority is claimed, by specifying the application number, country, day, month and year of its filing.
>
> The Declaration that the applicant has submitted has the incorrect filing date, 4/1/03.

Appropriate correct is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 9 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9: Applicant claims "each turn being wound less than 360°", while fig. 5 clearly illustrates the outer turn wound less than 360° and the inner turn wound an entire 360°.

Claim 10: Applicant claims "each turn is wound 270°", while fig. 5 clearly illustrates the outer turn wound 270° and the inner turn wound an entire 360°.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 6,642,896) in view of Garber et al. (US 6,486,780, hereinafter Garber) and Waldner (2004/0100413).

Claim 8: Kim teaches a contactless reading system, comprising

a plurality of contactless smart cards (430, Fig. 9, col. 1/lines 17-25 discloses the cards being credit cards),

a reader (col. 1/line 8) equipped with an antenna (col. 1/line 8) to read said identification data contained in the chips of said smart cards, wherein said reader comprises a flat antenna support (50, Fig. 4; col. 3/lines 36-37) on which is fixed at least one turn of small dimension (140, Fig. 4; co.3/lines 36-37) in series (Fig 4; col.3/lines 38-40) with one turn of large

dimension (120, Fig. 4; co.3/lines 36-37), said turns being circular and concentric (fig. 3, col. 5/lines 60-63) and having the same direction of winding (Fig 4; col.3/lines 38-40), and

Kim fails to teach that each of said contactless smart cards is attached to an object with the aim of identifying this object by means of identification data contained in a chip of the smart card. However, Garber teach "markers, also related to "smart cards" (col. 2/lines 14-15), being bonded to a book" (col. 4/line 67 – col. 5/line 1) in order to utilize the advantages of an RFID system as opposed to that of a barcode-based system. These advantages include but are not limited to, retrieval of information contained on the card requiring less time and numerous useful applications in the areas of inventory control, item tracking, and sorting that would be difficult or impossible to implement with barcode-based identification systems (col. 7/lines 46-48; col. 8/lines 9-13). The Examiner takes Official Notice that in archiving books, it is well known to mount cards on the flat surfaces of the covers or pages. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the smart cards of Kim on the books in Garber in order to have overcome the disadvantages of a barcode-base system such as requiring an unacceptably long time for information retrieval.

Kim also fails to teach that the reader be a mobile reader. Garber teaches that it is "desirable to provide a portable, preferably hand-held, RFID device (reader)". This allows the reader to be capable of searching among shelves, bins, piles and library carts (col. 14/lines 39-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the portable reader of Garber with the reader of Kim in order to have been capable of searching among shelves, bins, piles and library carts, where the books of Garber would have been located.

Kim also fails to teach three simple antennae connected in series, each antenna comprising a turn of small dimension connected in series with one turn of larger dimension, said turns being circular and concentric and having the same direction of winding. However, Waldner teaches an antenna which "may include any number of loops, such as 3, 5, 10, 15, 20, or more concentric loops" [0046] each loop being larger in diameter then the next the further you get from the center and symmetrical (Fig. 3). Waldner also teaches that the loops may be made from a single, continuous wire [0044]. Although Waldner illustrates his antenna as being rectangular in shape, he teaches that different geometric shapes may be used in order to obtain a desired electromagnetic field profile [0049]. Choosing circular turns will achieve a uniformly distributed electromagnetic field according to radial symmetry. It is advantageous to one with ordinary skill in the art to obtain a specific electromagnetic field profile. One advantage is to obtain maximum reception by a RFID tag when the RFID reader is oriented in a desired position. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the antenna of Waldner as the antenna of Kim in order to have obtained maximum reception by a RFID tag.

Kim also fails to teach a ratio between the diameter of the circular turn of large dimension and the diameter of the circular turn of small dimension connected in series therewith is between 2 and 3. However, Kim teaches that the strength of the magnetic field of the inner coil is reduced as the interval between the outer coil and the inter coil reaches a predetermined value, namely where a diameter of the inner coil is excessively small (col. 3/lines 48-53). The interval between coils is determined in part by the ratio of the diameter of the coils. Therefore, the ratio of the diameter is a result-effective variable because Kim recognizes that it would affect

the strength of the magnetic field. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the ratio of Kim to have obtained a desired magnetic field strength.

If the modifications to the invention of Kim were made as discussed above, one with ordinary skill in the art would realize a maximum value of the component H of the electromagnetic field produced by the antenna parallel to said antenna support. Also, since the reader is "mobile" and the card is placed on the flat support of a book, as discussed above, it is therefore capable for the reader to be positioned perpendicular to the flat support of the card so as to obtain maximum reception by the smart card of the electromagnetic signals transmitted by the said antenna.

Claims 9 & 10: Kim in view of Garber and Waldner teach all of the limitations of claim 9, as discussed above. Kim fails to teach each turn being wound 270°. However, Waldner teaches each turn being wound 270° (as discussed in the rejection of claim 8, Waldner discloses the antenna made from a single continuous wire, therefore, having each turn wound 270°. For example: Turn (1), beginning at one end of the wire, than circularly winding for 270°. Turn (2), beginning at the end of last winding, than circularly winding for another 270°. Turn (3), beginning at the end of last winding, than circularly winding for another 270°. Etc..). For the reasons discussed above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the antenna of Waldner as the antenna of Kim in order to have obtained maximum reception by a RFID tag.

Claims 11-13: Kim in view of Garber and Waldner teach all the limitations of claim 8 as well as that said contactless smart cards are fixed on objects, such as the covers, of books, as

discussed above. Each cover of a book is substantially parallel to the predefined plane of the other cover. Garber et al. teach placing books vertically on a shelf of a library (Fig. 13; col. 1/lines 27-30), in which case the planes of the front and back covers are substantially vertical.

Response to Arguments

6. Applicant's arguments filed February 20, 2007 have been fully considered but they are not persuasive.

Regarding the arguments that Kim and Garber fail to teach a reader containing at least three antennae in series:

Examiner notes that Kim in view of Garber and Waldner do teach a reader containing at least three antennae in series (see rejection for claim 8). Waldner explicitly teaches an antenna which "may include any number of loops, such as 3, 5, 10, 15, 20, or more concentric loops" [0046] each loop being larger in diameter then the next the further you get from the center and symmetrical (Fig. 3). Waldner also teaches that the loops may be made from a single, continuous wire [0044]. Since the antenna is made of 'one' continuous wire the loops are in series. Also, since the antenna can include multiple concentric loops, such as 10, the antenna must contain at least three simple antennae.

Regarding the arguments that Kim, Garber and Waldner fail to disclose three simple antennae in series, each comprising a turn of small dimension connected in series with one turn of larger dimension and Waldner disclosing an antenna comprising a plurality of loops, which are not connected such that a small turn is connected in series with a large turn:

Examiner notes that Waldner teaches an antenna which "may include any number of loops, such as 3, 5, 10, 15, 20, or more concentric loops" [0046] each loop being larger in

diameter then the next the further you get from the center and symmetrical (Fig. 3). Waldner also teaches that the loops may be made from a single, continuous wire [0044].

Regarding the arguments that one of ordinary skill in the art is given no disclosure or suggestion to modify the combination of Kim and Garber, further in view of Waldner, to arrive at the claimed system:

Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the antenna of Waldner as the antenna of Kim in order to have obtained maximum reception by a RFID tag.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Karacsony whose telephone number is 571-270-1268. The examiner can normally be reached on M-F 7:30-5 EST with alternating Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RK/RK

Douglas W. Owens 4/16/07

DOUGLAS W. OWENS
SUPERVISORY PATENT EXAMINER